\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Math 10 Exam Unit 1 – Measurement**

1. Convert the following to the indicated unit. (show all work)

a) 34 *cm* to *in* b) 48 *ft* to *m* c) 1.8 9 *km* to *ft*

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18 d) 1.2 *mi* to *cm* e) 12356 *m* to *mi* f) 47 *in* to *ft*

g) 1.9 *km* to *cm* h) 3.8 *mi* to *in* i) 11234 *cm* to *yd*

2. Convert 12 *yd*, 6 *ft* and 4 *in* into *cm.*

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3. Nakkita used a pedometer to count the number of steps she took on her morning walk. At the end of her

walk, the pedometer had recorded 4498 steps. Nakkita’s typical step length when walking is 0.7 *m*. To the

nearest mile, how far did Nakkita walk?

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4. A cone has a height of 8 ft and a base circumference of 12 ft. Determine the surface area, including the base,

of the cone to the nearest square foot.

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5. Determine the surface area for each of the following solids. Include the base where applicable.

 a) b) c) *r* = 8 *in*

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6. Determine the height of the following square pyramid whose surface area is indicated below. The value for

the surface area ***does not*** include the base.



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7. Determine the volume for each of the following solids.

 a) b) c)

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8. Emma used water displacement in a large measuring cylinder to determine that the volume of a right square

pyramid was 500 *cm*3. Emma measured the side of the base as 10 *cm*. What was the height of the pyramid?

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9. Determine the surface area of the following object. Include the base of the cylinder.



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10. Determine the volume of the following object.



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